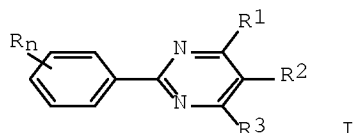


TITLE: Use of phenylpyrimidines as protecting agents for crop plants against phytotoxic damage caused by herbicides
 INVENTOR(S): Burdeska, Kurt; Kabas, Guglielmo; Brunner, Hans Georg; Foery, Werner
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G. , Switz.
 SOURCE: Eur. Pat. Appl., 98 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 55693	A1	19820707	EP 1981-810505	19811217 <--
EP 55693	B1	19880120		
R: AT, BE, CH, DE, FR, GB, IT, NL				
IN 159209	A1	19870411	IN 1981-DE784	19811215 <--
AT 32065	T	19880215	AT 1981-810505	19811217 <--
CA 1220953	A1	19870428	CA 1981-392824	19811221 <--
IL 64612	A	19880930	IL 1981-64612	19811221 <--
DK 8105712	A	19820624	DK 1981-5712	19811222 <--
DK 156687	B	19890925		
DK 156687	C	19900312		
ZA 8108852	A	19821229	ZA 1981-8852	19811222 <--
DD 202798	A5	19831005	DD 1981-236096	19811222 <--
HU 27801	A2	19831128	HU 1981-3912	19811222 <--
HU 191339	B	19870227		
CS 243465	B2	19860612	CS 1981-9672	19811222 <--
SU 1482505	A3	19890523	SU 1981-3369450	19811222 <--
AU 8178840	A	19820701	AU 1981-78840	19811223 <--
AU 558710	B2	19870205		
JP 57131702	A	19820814	JP 1981-208971	19811223 <--
JP 62025641	B	19870604		
BR 8108383	A	19821013	BR 1981-8383	19811223 <--
RO 83451	A1	19840221	RO 1981-106092	19811223 <--
PL 130575	B1	19840831	PL 1981-234418	19811223 <--
JP 61246102	A	19861101	JP 1986-68237	19860326 <--
JP 02053402	B	19901116		
PRIORITY APPLN. INFO.:			CH 1980-9522	A 19801223 <--
			CH 1981-2363	A 19810408 <--
			EP 1981-810505	A 19811217 <--

OTHER SOURCE(S): MARPAT 97:158036
 ED Entered STN: 12 May 1984
 GI



AB The phenylpyrimidines I (R = H, alkyl, halo, NO₂, CF₃, etc.; R₁ = H, halo, Some, OMe, etc.; R₂ = H, Me, Ph, NMe, OEt, etc.; R₃ = H, halo, OEt, NHMe, SEt, etc.; n = 1-5) are herbicide antidotes. Thus, post-transplant application of

2-phenyl-4-chloropyrimidine [3740-92-9] (1 kg/ha) protected rice against the phytotoxic activity of pretilachlor [51218-49-6] (1 kg/ha) by 50%. The synthesis of I is given.

IC C07D239-30; A01N025-32; C07D405-10

CC 5-3 (Agrochemical Bioregulators)

Section cross-reference(s): 28

IT	1701-72-0P	3740-90-7P	3740-91-8P	3740-92-9P	13514-79-9P
	14727-23-2P	15726-40-6P	17077-89-3P	17077-93-9P	20655-14-5P
	21139-61-7P	21139-63-9P	26863-48-9P	26863-54-7P	26870-72-4P
	29509-92-0P	29954-25-4P	<u>72520-17-3P</u>	<u>77232-14-5P</u>	
	<u>77232-18-9P</u>	<u>77232-19-0P</u>	<u>77232-21-4P</u>		
	<u>77232-23-6P</u>	<u>77232-25-8P</u>	<u>79382-42-6P</u>		
	<u>79382-43-7P</u>	<u>79382-44-8P</u>	<u>79382-45-9P</u>		
	<u>79382-46-0P</u>	<u>79382-47-1P</u>	<u>79382-48-2P</u>		
	<u>79382-49-3P</u>	<u>79382-50-6P</u>	<u>79382-51-7P</u>		
	<u>79382-68-6P</u>	<u>79382-77-7P</u>	<u>79382-78-8P</u>	<u>79382-82-4P</u>	
	79396-00-2P	83063-00-7P	83063-01-8P	83216-81-3P	83216-82-4P
	83216-83-5P	<u>83216-84-6P</u>	<u>83216-85-7P</u>		
	<u>83216-86-8P</u>	<u>83216-87-9P</u>	<u>83216-88-0P</u>		
	<u>83216-92-6P</u>	<u>83216-93-7P</u>	<u>83216-94-8P</u>		
	83216-95-9P	83216-96-0P	83216-97-1P	<u>83216-98-2P</u>	
	<u>83216-99-3P</u>	<u>83217-00-9P</u>	<u>83217-01-0P</u>		
	<u>83217-02-1P</u>	<u>83217-03-2P</u>	<u>83217-04-3P</u>		
	83217-05-4P	83217-06-5P	83217-07-6P	83217-08-7P	83217-09-8P
	83217-10-1P	83217-11-2P	83217-12-3P	83217-13-4P	83217-14-5P
	83217-15-6P	83217-16-7P	83217-17-8P	83217-18-9P	83217-19-0P
	83217-20-3P	83217-21-4P	83217-22-5P	83217-23-6P	83217-24-7P
	83217-25-8P	83217-26-9P	83217-27-0P	83217-28-1P	83217-29-2P
	83217-30-5P	83217-31-6P	83217-32-7P	<u>83217-33-8P</u>	
	83217-34-9P	83217-35-0P	83217-36-1P	83217-37-2P	83217-38-3P
	83217-39-4P	83217-40-7P	83217-41-8P	83217-42-9P	83217-43-0P
	83217-44-1P	83217-45-2P	83217-46-3P	83217-47-4P	83217-48-5P
	83217-49-6P	83217-50-9P	83217-51-0P	83217-52-1P	83217-53-2P
	83217-54-3P	83217-55-4P	83217-56-5P	83217-57-6P	83217-58-7P
	83217-59-8P	83217-60-1P	83217-61-2P	83217-62-3P	83217-63-4P
	83217-64-5P	83217-65-6P	83217-66-7P	83217-67-8P	83217-68-9P
	83217-69-0P	83217-70-3P	<u>83217-71-4P</u>	83217-72-5P	
	83217-73-6P	83217-74-7P	83217-75-8P	83217-76-9P	

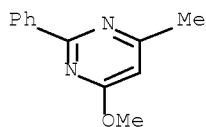
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation and herbicide-antidote activity of)

IT	<u>72520-17-3P</u>	<u>77232-14-5P</u>	<u>77232-18-9P</u>
	<u>77232-19-0P</u>	<u>77232-21-4P</u>	<u>77232-23-6P</u>
	<u>79382-42-6P</u>	<u>79382-43-7P</u>	<u>79382-44-8P</u>
	<u>79382-46-0P</u>	<u>79382-47-1P</u>	<u>79382-48-2P</u>
	<u>79382-49-3P</u>	<u>79382-50-6P</u>	<u>79382-51-7P</u>
	<u>79382-78-8P</u>	<u>79382-82-4P</u>	<u>83216-84-6P</u>
	<u>83216-85-7P</u>	<u>83216-86-8P</u>	<u>83216-87-9P</u>
	<u>83216-88-0P</u>	<u>83216-92-6P</u>	<u>83216-93-7P</u>
	<u>83216-94-8P</u>	<u>83216-98-2P</u>	<u>83216-99-3P</u>
	<u>83217-00-9P</u>	<u>83217-01-0P</u>	<u>83217-02-1P</u>
	<u>83217-03-2P</u>	<u>83217-04-3P</u>	<u>83217-33-8P</u>
	<u>83217-71-4P</u>		

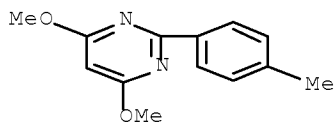
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation and herbicide-antidote activity of)

RN 72520-17-3 HCAPLUS

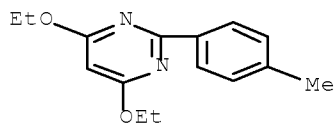
CN Pyrimidine, 4-methoxy-6-methyl-2-phenyl- (CA INDEX NAME)



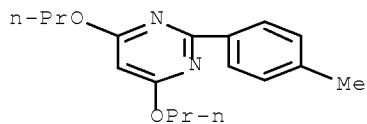
RN 77232-14-5 HCAPLUS
 CN Pyrimidine, 4,6-dimethoxy-2-(4-methylphenyl)- (CA INDEX NAME)



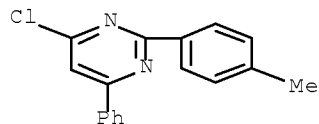
RN 77232-18-9 HCAPLUS
 CN Pyrimidine, 4,6-diethoxy-2-(4-methylphenyl)- (CA INDEX NAME)



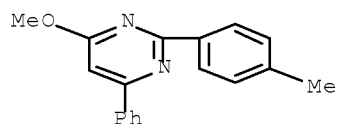
RN 77232-19-0 HCAPLUS
 CN Pyrimidine, 2-(4-methylphenyl)-4,6-dipropoxy- (CA INDEX NAME)



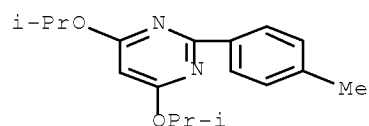
RN 77232-21-4 HCAPLUS
 CN Pyrimidine, 4-chloro-2-(4-methylphenyl)-6-phenyl- (CA INDEX NAME)



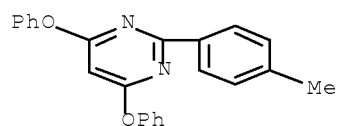
RN 77232-23-6 HCAPLUS
CN Pyrimidine, 4-methoxy-2-(4-methylphenyl)-6-phenyl- (CA INDEX NAME)



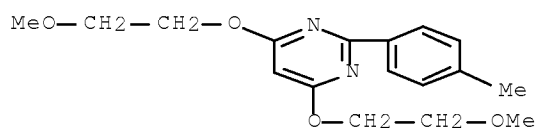
RN 79382-42-6 HCAPLUS
CN Pyrimidine, 4,6-bis(1-methylethoxy)-2-(4-methylphenyl)- (CA INDEX NAME)



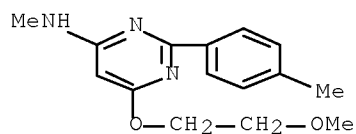
RN 79382-43-7 HCAPLUS
CN Pyrimidine, 2-(4-methylphenyl)-4,6-diphenoxy- (CA INDEX NAME)



RN 79382-44-8 HCAPLUS
CN Pyrimidine, 4,6-bis(2-methoxyethoxy)-2-(4-methylphenyl)- (CA INDEX NAME)

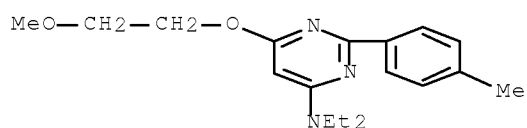


RN 79382-46-0 HCAPLUS
CN 4-Pyrimidinamine, 6-(2-methoxyethoxy)-N-methyl-2-(4-methylphenyl)- (CA INDEX NAME)



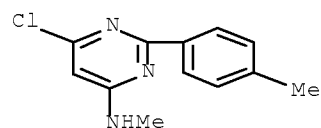
RN 79382-47-1 HCAPLUS

CN 4-Pyrimidinamine, N,N-diethyl-6-(2-methoxyethoxy)-2-(4-methylphenyl)- (CA INDEX NAME)



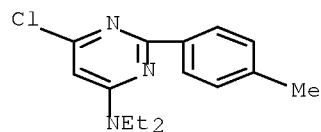
RN 79382-48-2 HCAPLUS

CN 4-Pyrimidinamine, 6-chloro-N-methyl-2-(4-methylphenyl)- (CA INDEX NAME)



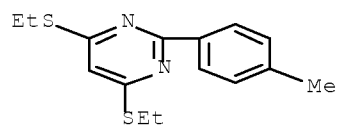
RN 79382-49-3 HCAPLUS

CN 4-Pyrimidinamine, 6-chloro-N,N-diethyl-2-(4-methylphenyl)- (CA INDEX NAME)

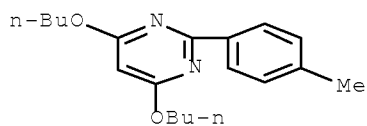


RN 79382-50-6 HCAPLUS

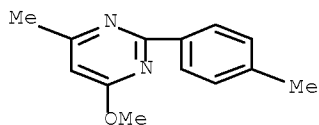
CN Pyrimidine, 4,6-bis(ethylthio)-2-(4-methylphenyl)- (CA INDEX NAME)



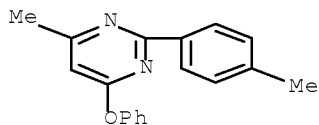
RN 79382-51-7 HCAPLUS
CN Pyrimidine, 4,6-dibutoxy-2-(4-methylphenyl)- (CA INDEX NAME)



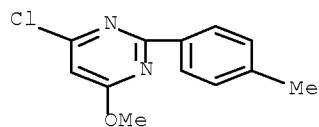
RN 79382-78-8 HCAPLUS
CN Pyrimidine, 4-methoxy-6-methyl-2-(4-methylphenyl)- (CA INDEX NAME)



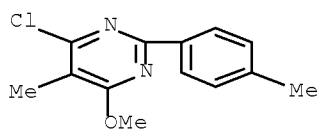
RN 79382-82-4 HCAPLUS
CN Pyrimidine, 4-methyl-2-(4-methylphenyl)-6-phenoxy- (CA INDEX NAME)



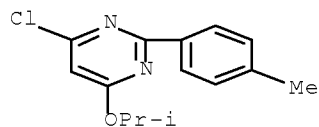
RN 83216-84-6 HCAPLUS
CN Pyrimidine, 4-chloro-6-methoxy-2-(4-methylphenyl)- (CA INDEX NAME)



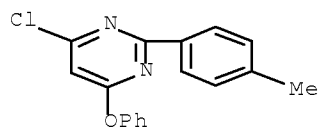
RN 83216-85-7 HCAPLUS
CN Pyrimidine, 4-chloro-6-methoxy-5-methyl-2-(4-methylphenyl)- (CA INDEX NAME)



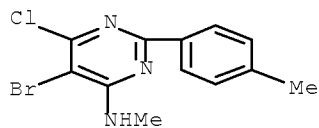
RN 83216-86-8 HCAPLUS
 CN Pyrimidine, 4-chloro-6-(1-methylethoxy)-2-(4-methylphenyl)- (CA INDEX NAME)



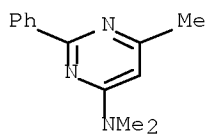
RN 83216-87-9 HCAPLUS
 CN Pyrimidine, 4-chloro-2-(4-methylphenyl)-6-phenoxy- (CA INDEX NAME)



RN 83216-88-0 HCAPLUS
 CN 4-Pyrimidinamine, 5-bromo-6-chloro-N-methyl-2-(4-methylphenyl)- (CA INDEX NAME)

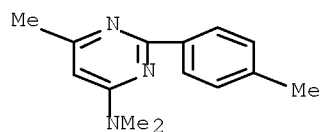


RN 83216-92-6 HCAPLUS
 CN 4-Pyrimidinamine, N,N,6-trimethyl-2-phenyl- (CA INDEX NAME)



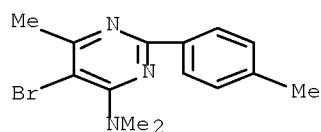
RN 83216-93-7 HCAPLUS

CN 4-Pyrimidinamine, N,N,6-trimethyl-2-(4-methylphenyl)- (CA INDEX NAME)



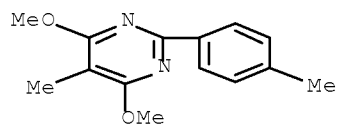
RN 83216-94-8 HCAPLUS

CN 4-Pyrimidinamine, 5-bromo-N,N,6-trimethyl-2-(4-methylphenyl)- (CA INDEX NAME)



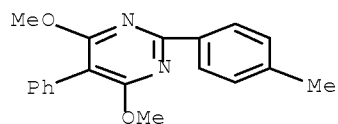
RN 83216-98-2 HCAPLUS

CN Pyrimidine, 4,6-dimethoxy-5-methyl-2-(4-methylphenyl)- (CA INDEX NAME)



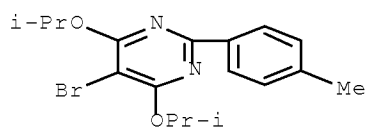
RN 83216-99-3 HCAPLUS

CN Pyrimidine, 4,6-dimethoxy-2-(4-methylphenyl)-5-phenyl- (CA INDEX NAME)



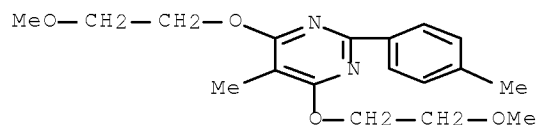
RN 83217-00-9 HCAPLUS

CN Pyrimidine, 5-bromo-4,6-bis(1-methylethoxy)-2-(4-methylphenyl)- (CA INDEX NAME)



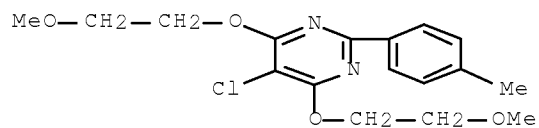
RN 83217-01-0 HCAPLUS

CN Pyrimidine, 4,6-bis(2-methoxyethoxy)-5-methyl-2-(4-methylphenyl)- (CA INDEX NAME)



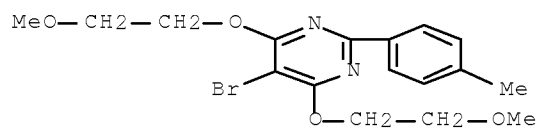
RN 83217-02-1 HCAPLUS

CN Pyrimidine, 5-chloro-4,6-bis(2-methoxyethoxy)-2-(4-methylphenyl)- (CA INDEX NAME)



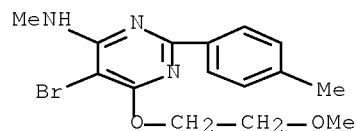
RN 83217-03-2 HCAPLUS

CN Pyrimidine, 5-bromo-4,6-bis(2-methoxyethoxy)-2-(4-methylphenyl)- (CA INDEX NAME)



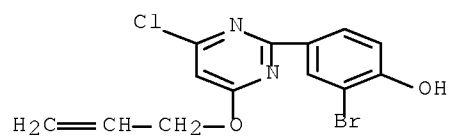
RN 83217-04-3 HCAPLUS

CN 4-Pyrimidinamine, 5-bromo-6-(2-methoxyethoxy)-N-methyl-2-(4-methylphenyl)- (CA INDEX NAME)



RN 83217-33-8 HCAPLUS

CN Phenol, 2-bromo-4-[4-chloro-6-(2-propen-1-yloxy)-2-pyrimidinyl]- (CA INDEX NAME)



RN 83217-71-4 HCAPLUS

CN 4-Pyrimidinol, 6-chloro-2-(4-methylphenyl)-, 4-acetate (CA INDEX NAME)

